77th Annual Shellfish Conference and Tradeshow

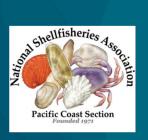
CONFERENCE PROGRAM



PCSGA

PACIFIC COAT SHELLISH GROWERS ASSOCIATION

September 18-21, 2023 Seaside Civic & Convention Center Seaside, OR



Schedule at a Glance

Riverside A & B

Monday, September 18th

1:00 **PCSGA Board Meeting** Schley Golf Scramble 8:30

4:30 PCSGA Annual General Meeting Riverside A & B 9:00 Pickleball Tournament

Tuesday, September 19th Plenary - Pacific Room

Welcome 9:00

Plenary Panel 11:00

Opening Luncheon 12:00

Breakout Sessions

Session 1 - Riverside B Session 2 - Necanicum Session 3 - Riverside A

2:00 - 4:00 Ocean Conditions 2:00 - 2:45 Social License Workshop 2:00 - 4:00 Genetics, Genomics and Broodstock 3:15 - 4:00 Social Media Workshop

Wednesday, September 20th

Session 1 - Riverside A Session 2 - Riverside B Session 3 - Pacific Room

9:00 - 10:30 **USDA** Pacific **ECOP Feedback Session** 8:30 - 9:00 8:30 - 12:30 Policy and Permitting Shellfish Conservation 9:00 - 12:00 Research and Restoration Session 1 - Necanicum East Unit Session

12:00 -12:30 **Lightning Talks** 2:00 - 3:30 West Coast Federal

2:00 - 2:30 Shellfish Research Outreach **11:00 - 11:45** Workshop: OsHV-1 and Education Update and and The West

Listening Session Down on the Farm 2:30 - 3:15 Coast Shellfish Industry 3:45 - 4:00 Ecosystem and Best 3:45 - 4:30 Federal Agency Policy

Management Practices and Program Updates

and Listening Session 4:15 -4:30 Shellfish and Beyond Bivalves: 2:00 - 3:30 Human Health Crab, Seaweed,

> **NANOOS Update** and More

Thursday, September 21st

Session 1 - Riverside A Session 2 - Riverside B

8:45 - 9:30 Labor Issues 8:45 - 9:00 Policy/Ecosystem Management The Nature Conservancy 9:00 - 10:30 Integrated Pest Management 9:30 - 10:30 Program Updates

4:30 - 5:00

Names marked wiht an * indicate student presenters.

For more information about PCSGA or NSA visit our websites at: www.pcsga.org - www.shelfish.org

FEATURED SPEAKERS



Carissa E. Maurin, M.S.

Aquaculture Program Manager
Gulf of Maine Research Institute

John Lentz Featured Speaker: Gulf of Maine Research Institute Aquaculture Apprenticeship Program

Carissa Maurin, Aquaculture Program Manager at the Gulf of Maine Research Insitute, is working to support the sustainable growth of the aquaculture sector. She works collaboratively with industry leaders, farmers, researchers, the business community, and other nonprofits to identify and pursue opportunities that will secure its healthy future. Her current focus is helping the industry meet rising workforce demands and providing the kinds of business planning and training resources that will lead to long-term profitability, such as the implementation of The Maine Aquaculturist website and the Aquaculture Apprenticeship program.



Emily Whitmore

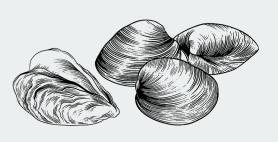
Main Aquaculture Innovation Center

Working Toward Social License to Operate

Emily Whitmore is a social scientist at the Maine Aquaculture Innovation Center. Most recently, she has been working with on a project with 30 Maine shellfish and seaweed farmers to codevelop a guide to generating social license.

Despite the environmental and economic benefits of aquaculture, public opposition to farm sites has become a significant barrier to growth for the industry. Emily will discuss the important role that social science plays in the sustainable development of aquaculture and will take a deep dive into social license to operate. She will share results from a recent cocreated project that resulted in a guide to social license for Maine shellfish and seaweed farmers and talk about how social license can be an important tool for sustainable development.

Monday, September 18th



8:30	Schley Golf Scramble	Gearhart Golf Links
9:00	Pickleball Tournament	Sunset Empire Park and Recreation District
1:00	PCSGA Board Meeting	Riverside A & B
4:00	Break	

PCSGA Annual General Meeting

Clam -O-Ramma

Try your luck at catching a pearl!

Tuesday, Sept. 19th at 5:00

Main Lobby of Convention Center

Come to raise money for the NSA-PCS

Student Fund. Bring your wallet!

4:30



Check out new apparel at NSA table featuring art by **Nam Siu**. Thank you, **Jenny Lee** for your design work.

Riverside A & B

@spearotaku



COMMUNITIES

Check out new apparel at PCSGA table featuring art by Anna Pedersen.

(o') @saltyearthstudios

AWARDS BANQUET AND SILENT AUCTION

Pacific Room

Wednesday, Sept. 20th at 6:00 p.m.

Proceeds for PCSGA go to support the Grower Enrichment & Development Fund and the John Lentz Profiles In Innovation Speaker Series. Proceeds for NSA-PCS go to support student involvement in shellfish science through conference attendance.

Tuesday, September 19th

Plenary Session

9:00 Welcome

9:15 John Lentz Featured Speaker: Aquaculture Apprenticeship Program Carissa Maurin, Gulf of Maine Research Institute

10:30 **Break**

11:00 Plenary Panel

12:00 Opening Luncheon Featuring a special presentation by the authors of 'Heaven on the Half Shell' Necanicum East & West

Tuesday, September 19th Ocean Conditions

Riverside Room B, Moderated by: Liz Toblin

- 2:00 Response of eastern oysters (Crassostrea virginica) and soft shell clams (Mya arenaria) repeated hypoxia durring heatwaves Jasmine, Talevi* (Dalhousie University), Shelby Clarke, Michael Coffin, Luc Comeau, Takashi Sakamaki and Ramon Filgueira
- 2:15 Exploring adaptation and plasticity to ocean warming in blue mussels (Mytilus edulis) from Atlantic Canada Shelby B. Clarke* (Dalhousie University), Tiago Hori, Luc Comeau, and Ramon Filgueira
- 2:30 Examining the impacts of elevated, variable pCO2 on larval Pacific razor clams (Siliqua patula) in Alaska Marina Alcantar* (University of Alaska Fairbanks), Jeff Hetrick, Jacqueline Ramsay, and Amanda Kelley
- 2:45 Environmental Priming for Ocean Acidification: Potential hatchery practices to build resilience for clam aquaculture in the Puget Sound Larken Root (Univeristy of Washington/NOAA), Mackenzie Gavery, Ryan Crim"
- 3:30 Break
- 3:15 Potential of the macroalgae dulse (Devaleraea mollis) to mitigate effects of ocean acidification on larval Pacific oysters (Magallana gigas) in land-based co-culture. Leah Wessler* (University of British Columbia), Dr. Andrea Frommel, Dr. Jennifer Clark
- Recovery from an atmospheric heatwave in Midori and Miyagi strains of the Pacific oyster Hollis Jones* 3:30 (University of California, Davis), Cassidy Cooper, Anne Todgham
- Triploid Pacific oysters exhibit stress response dysregulation and elevated mortality following heatwaves 3:45 Matthew George (University of Washington), Olivia Cattau, Mollie A. Middleton, Delaney Lawson, Brent Vadopalas, Mackenzie Gavery, Steven Roberts
- Environmental effects on biological characteristics of Pacific oyster Crassostrea gigas cultured in the Seto Inland Sea, Japan, from 1990 to 2022 Yumeng Pang (University of Washington), Tsuneo Ono, Takehiro Tanaka
- 4:30 Tradeshow Reception and NSA Fundraiser

Workshop - Social License

Pacific Room

- 2:00 Social License Workshop Moderated by Emily Whitmore and Anne Langston (Maine Aquaculture **Innovation Center)**
- 3:00 Break

Workshop - Social Media

Pacific Room

- Social Media workshop Moderated by Cora Hirashiki (Fat Moon Creative)
- Tradeshow Reception and NSA Fundraiser

A Special Thank You To:

NorPlex, Inc.
NORTHWEST PLASTIC EXTRUSION for generously hosting the Hospitality Suite!

Hospitality Suite located at the Ebb Tide Inn in room 200 and open until 10:00 p.m.

Tuesday, September 19th

Genetics, Genomics and Broodstock

Riverside Room A, Moderated by: Penny Swanson

- 2:00 Genetic Variation in Growth of Pacific Oysters is Primarily Non-Additive **Dennis Hedgecock** (University of Southern California), Xiaoshen Yin
- 2:15 Development of an Alternative Sterility Method for Shellfish Aquaculture: Identification of Candidate Genes Involved in Germ Cell Specification Mackenzie Gavery (NOAA Fisheries NW Fisheries Science Center), Lauren Saunders, Lauren Vandepas, Brent Vadopalas, Adam Luckenbach, Cole Trapnell, Steven Roberts
- 2:30 Shellfish stress and chromosome copies: performance of diploid and triploid oysters under temperature, pH, and dissolved oxygen stress **Craig Norrie (University of Washington)**
- 2:45 Sex determination in Pacific oysters (Crassostrea gigas): Translating basic science into more efficient oyster production **Bernarda Calla (USDA-ARS)**, Neil Thompson
- 3:00 Break
- 3:15 Coupling in vitro challenge and transcriptomics to investigate mechanisms of eastern oyster apoptotic response to the intracellular parasite Perkinsus marinus Erin M. Witkop (University of Rhode Island), Dina P. Proestou, Gary Wikfors, Kathryn Markey-Lundgren, Mary Sullivan, Marta Gomez-Chiarri.
- 3:30 Experimental assessment of POGS YC2023 to OsHV-1 microvar Neil Thompson (USDA- Pacific Shellfish Research Unit), Marni Rem-McGeachy, Will Schoeneck, Darren DeSilva, Nasif Sarowar
- 3:45 Center for Aquaculture Technology Canada (CATC) developed OsHV challenge model to assess family resistance in controlled laboratory condition. Nasif Sarowar (The Center for Aquaculture Technologies)
- 4:30 Tradeshow Reception and NSA Fundraiser

Wednesday, September 20th Policy and Permitting

Riverside Room A, Moderated by: Jenn Allison

- 8:45 NAHMS: A trusted data oyster with a clam-like formula and statistical mussel helping to meet information needs! Diana Short (USDA APHIS VS NAHMS)
- 9:00 A Report on Work By NOAA Fisheries and Partners to Assess and Enhance The Permitting and Regulatory Landscape in Washington State Jeff Bash (NOAA Fisheries)
- 9:15 ELAP: Opportunities and Challenges from a National Perspective Charlie Culpepper (National Aquaculture Association)
- 9:30 Shellfish Farming and the Endangered Species Act Amanda M. Carr (Plauché & Carr LLP)
- 9:45 Legal Issues Impacting Shellfish Samuel W. (Billy) Plauché (Plauché & Carr LLP)
- 10:00 Communicating information on ecosystem services provided by shellfish aquaculture into the aquaculture permitting and review process. Chris Schillaci (NOAA Fisheries)
- 10:30 Break
- 11:15 Washington State Department of Health Commercial Shellfish Enforcement Program Overview Dani Toepelt, R.S. (WA Dept. of Health)
- 11:30 An electronic aquaculture production data system for Washington Chris Eardley (WA Dept. of Fish and Wildlife), Bobbi Hudson, Dani Toepelt, David Beugli, Laura Butler, Kim Thompson, Kevin Deckeraph text

Wednesday, September 20th Policy and Permitting Cont.

Riverside Room A, Moderated by: Jenn Allison

- 11:45 Public Engagement Toolkit Kim Thompson (Pacific Coast Shellfish Growers Association)
- 12:00 Shellfish Farm Permitting Toolbox Kelly McDonald (Confluence Environmental Company), Marlene Meaders, Jesse DeNike, Samantha Klein
- 12:30 Lunch Break / NSA Luncheon

West Coast Federal Shellfish Research Update and Listening Session

Necanicum East

- 2:00 West Coast Federal Shellfish Research Update and Listening Session NOAA Fisheries and USDA ARS
- 3:30 Break

Federal Agency Policy and Program Updates and Listening Session

Necanicum East

- **3:45** Federal Agency Policy and Program Updates and Listening Session **NOAA Fisheries Office of Aquaculture, US Department of Agriculture, National Aquaculture Association**
- 5:00 Memorial Social Hour Pacific Room
- 6:00 Awards Banquet and Silent Auction Pacific Room

ECOP Feedback

Riverside Room B, Moderated by: Kim Thompson

8:30 Environmental Codes of Practice (ECOP) Revision Update and Feedback Session Kim Thompson (Pacific Coast Shellfish Growers Association), Samantha Klein, Bobbi Hudson

Conservation and Restoration

Riverside Room B, Moderated by: Hank Carson

- 9:00 A population health approach to monitoring oyster disease in Long Island Sound in support of regional restoration and harvest goals Meghana P. Parikh (NOAA Fisheries Northeast Fisheries Science Center), Mariah L. Kachmar, Stephen Arnott, and Katherine McFarland
- 9:15 Determination of gonad reproductive state using non-lethal ultrasonography in endangered black (Haliotis cracherodii) and white abalone (H. sorenseni) Sara E. Boles (Bodega Marine Laboratory, University of California, Davis), Laura Rogers-Bennett, Wendy K. Bragg, Jessica Bredvik-Curran, Suzanne Graham, & Jackson A. Gross
- 9:30 Integrating aquaculture to improve Olympia oyster restoration in the Elkhorn Slough, CA Jacob Harris*
 (Moss Landing Marine Laboratories, San Jose State University), Luke Gardner, Amanda Kahn, Kerstin Wasson
- 9:45 Every Breath You Take: Siphon Visibility Of Puget Sound Wild Geoducks Henry S. Carson(WA Dept. of FIsh and Wildlife) Bethany C. Stevick and Ocean Working

Conservation and Restoration Cont.

- 10:00 A Novel Social-Ecological Clam Garden Site Selection Process **Joe Williams (Swinomish Indian Tribal Community**), Courtney M. Greiner, Julie S. Barber, Jamie Donatuto, Melissa Poe, James McArdle, Lindy Hunter, Michal Heidt
- 10:15 Baskets of cockles in fields of geoduck: Assessing Clinocardium nuttallii abundance in geoduck farms across Puget Sound Ryan Crim (Puget Sound Restoration Fund), Emily Buckner, Elizabeth Unsell, Darbhi Durvasula, Hannah Garfield, Jodie Toft
- 10:30 Break
- 11:00 Watching from Above Monitoring Eelgrass Habitats in Humboldt, Samish, and Willapa Bays **Phil Bloch** (Confluence Environmental Company), Kelly McDonald, Whelan Gilkerson and Bobbi Hudson
- 11:15 Recovery mechanisms of eelgrass (Zostera marina) following dredging disturbance Fiona Boardman* (University of Washington), Elena Subbotin, Jennifer Ruesink
- 11:30 Nekton Use of Seagrass (Zostera Marina) Habitat on Oyster Flip-bag Farms **Katie Houle (Pacific Shellfish Institute)**, Kalloway Page, Fiona Boardman, Jennifer Ruesink
- 11:45 Can coralline algae habitat bolster the climate resilience of Washington's endangered pinto abalone?

 Eileen Bates* (University of Washington), Josh Bouma, Ryan Crim, Jodie Toft, Jacqueline Padilla-Gamino

Five Minute Lightning Talks

Riverside Room B, Moderated by: Kalloway Page

- **12:00** WDFW's Safeguard Our Shellfish Campaign **Nam Siu (WA Dept. of Fish and Wildlife)**, Katy Davis, Matt Hoehn, Chris Eardley;
- 12:05 An update on West Coast Shellfish Biosecurity Workshop Series Chris Eardley (WA Dept. of Fish and Wildlife), Chris Langdon, Maria Haws;
- 12:10 Effect of Biofouling and Stocking Density on Microclimate in off-Bottom Oyster Culture Grow-Out Bags Julianne Grenn* (Virginia Institute of Marine Science) and William Walton
- 12:15 Is water temperature a critical factor dictating OsHV-1 SD Bay µvar infection and mortality rates in Pacific oysters? Emily Kunselman* (Scripps Institution of Oceanography), Daysi Manrique, Zachary Daniel, Colleen Burge, Sarah Allard, Jack Gilbert;
- 12:20 Enhancing access to ocean data and information products from the Central and Northern California Ocean Observing System (CeNCOOS) to support well-informed shellfishery management Marine Lebrec (Monterey Bay Aquarium Research Institute), Alex Harper
- 12:30 Lunch Break/NSA Luncheon

Outreach and Education

Riverside Room B, Moderated by: Mary Elizabeth Bissell

- 2:00 Seaweed farming in the classroom: educational materials **Kristin Jones (Pacific Northwest National Laboratory)**, Deborah Rose, Molly Grear, Ruth Branch, Candace Briggs
- 2:15 Washington Shellfish Perceptions: Survey Results Examining Messages and Attitudes in Shellfish Producing Counties **Brett Veerhusen (Ocean Strategies)**, Tyler Edgar

Wednesday, September 20th

Down on the Farm

Riverside Room B, Moderated by: Nyle Taylor

- The effect of including Nannochloropsis oculata within mixed algal diet on growth and survival of Pacific 2:30 oyster Crassostrea gigas larvae. Zachary Kowash (Oregon State University)
- Quantifying Bed Quality: a Comparison of Oyster Yield Across Habitats and Growout Methods Jennifer 2:45 Ruesink (University of Washington), Fiona Boardman, Wesley Hull, Aspen Katla, Andy Suhrbier, Emma Beck, Katie Houle
- Experiences With Experimenting with and Developing Floating Oyster Bags Nyle Taylor (Taylor Shellfish 3:00 Farms)
- Tidal Energy for Mariculture Operations Candace Briggs (Pacific Northwest National Laboratory), 3:15 Ruth Branch, Molly Grear, Debbie Rose, Kristin Jones
- 3:30 Break

Ecosystems and Best management Practices

Riverside Room B, Moderated by: Craig Norrie

- Ecosystem-based management for community and industry resilience: collaboratively modeling Washington 3:45 coastal estuaries Nicole Naar (WA Sea Grant), Kate Litle, P. Sean McDonald, Ashleigh Epps
- 4:00 Do Oysters Reduce or Increase Transmission of Eelgrass Wasting Disease? Lindsay Alma, PhD (University of California, Davis)

Shellfish and Human Health

Riverside Room B, Moderated by: David Fyfe

Effects of the harmful alga Cochlodinium (aka Margalefedinium) polykrikoides on clearance rate of the hard 4:15 clam, Mercenaria mercenaria Darren de Silva (USDA-ARS), Christopher J. Gobler

NANOOS Update

Riverside Room B, Moderated by: David Fyfe

- Providing ocean and coastal data access for Pacific Northwest Shellfish Growers with the 4:30 NANOOS Visualization System Rachel Wold (University of Washington), Jan Newton, Roxanne Carini, Nicholas Rome, Jonathan Allan, Troy Tanner, Charles Seaton, Michael Kosro
- Memorial Social Hour Pacific Room 5:00
- 6:00 Awards Banques and Silent Auction • Pacific Room

A Special Thank you To: Coffee Break Sponsors

> Alaska Packaging Inc. **Englund Marine & Industrial** Hama Hama Co. Rock Point Oyster Co.

Seapa

Wednesday, September 20th

Workshops and Listening Sessions

Pacific Room

- 9:00 USDA Pacific Shellfish Research Unit Engagement Session POGS Breeding **Program Update and Listening Session** USDA-ARS Pacific Shellfish Research Unit
- 10:30 Break
- 11:00 Workshop: Strengthening Research Support for Shellfish Health Management OsHV-1 and The West Coast Shellfish Industry NOAA Fisheries Northeast Fisheries Science Center and CA Department of Public Health

Virtual Farm Experience

Pacific Room

- 12:15 An oyster farm in your living room: Distant, Immersive, Virtual Education for Agriculture (DIVE4Ag) Ford Evans (Oregon State University)
- 12:30 Lunch Break/NSA Luncheon

Beyond Bivalves: Crab, Seaweed, and more

Riverside Room C, Moderated by: Andy Suhrbier

- 2:00 Toward the qualitative modeling of Dungeness crab for management and conservation in the South Puget Sound Melanie Good* (University of Washington), P. Sean McDonald, Erendira Aceves Bueno, and Emily Buckner
- 2:15 Effects of climate change (warming and acidification) on bull kelp (Nereocystis leutekana) microscopic stages Miranda Roethler* (University of Washington), Jacqueline Padilla-Gamino, Cinde Donoghue
- 2:30 The Impact of Temperature on the Nutritional Composition of Dulse (Devaleraea mollis) and its Influence on Juvenile Red Abalone (Haliotis rufescens) Jackson Gross (Univeristy of California, Davis), Natalie Rizzo, and Sara Boles
- 2:45 A year in the life: Tracking post-larval cohorts of Dungeness crab in an estuarine system Sarah Grossman (Swinomish Indian Tribal Community), Claire Cook, Julie Barber
- 3:00 Return of the Green: An update on the development of a seaweed recycling network **Emily Buckner** (Puget Sound Restoration Fund), Hannah Garfield, Jodie Toft, Joth Davis, Bill Dewey, Duane Fagergren, Evie Fagergren, Betsy Peabody
- 3:30 Break
- 5:00 Memorial Social Hour Pacific Room
- 6:00 Awards Banquet and Silent Auction Pacific Room

A Special Thank You To:
Awards Banquet Sponsor

PLAUCHÉ &CARRUP

8:30 Morning Coffee

Labor Issues

Riverside room A, Moderated by: Nicole Naar

- 8:45 wafla update Enrique Gastelum (wafla)
- 9:15 Tide's Out: Proposed Washington Shellfish Crew and Manager Training Teri King (Washington Sea Grant), Ashleigh Epps, Nicole Naar

The Nature Conservancy Program Updates

Riverside room A

- 9:30 TNC's Restorative Aquaculture Program Stories, Updates, and New Tools The Nature Conservancy
- 10:30 Adjourn

Policy/Ecosystem Management

Riverside room B, Moderated by: Bobbi Hudson

8:45 Taylor Shellfish Farms - Habitat Conservation Plan Jesse DeNike (Plauche & Carr), Samuel W. (Billy) Plauche, Phil Bloch, Kelly McDonald, and Chris Cziesla

Integrated Pest Management

Riverside room B, Moderated by: Bobbi Hudson

- 9:00 Ecological impacts of the invasive European green crab (Carcinus maenas) in Washington Ben Rubinoff (WA Sea Grant)
- 9:15 What's Eating You: an Overview of Known Interactions and Impacts of The Invasive European Green Crab on Pacific Coast Shellfish Species. **Brian Turner (WA Dept. of Fish and Wildlife)**
- 9:30 Monitoring Recent Shifts in Burrowing Shrimp Populations in Coastal Estuaries: Are They Really New and Should a Shellfish Grower be Concerned? **Brett R Dumbauld (USDA-ARS)**, Brooke McIntyre, Nathaniel Lewis, Jennifer Ruesink, and Wesley Hull
- 9:45 IPM Update from WA Department of Agriculture Laura Butler (WA Department of Agriculture)
- 10:30 Adjourn

A Special Thank You To:

Student Sponsors

Vicki Wilson - Arcadia Point Seafood Shina Wysocki - Chelsea Farms Inc. Derek Epps - Gooey Duck LLC Adam James - Hama Hama Nate Wight - Jorstad Creek Oyster Company Bobbi Hudson - Pacific Shellfish Institute Daniel Cheney - Pacific Shellfish Institute Lisa Carleton-Long - Rock Point Oyster Co. Bill Dewey - Taylor Shellfish Farms Alan Barton - Whiskey Creek Shellfish Hatchery Max Wiegardt - Whiskey Creek Shellfish Hatchery Eric Schlagenhauf - Sepa

John Lentz Profiles in Innovation Speaker Series Donations

Vicki Wilson - Arcadia Point Seafood Adam James - Hama Hama Co. Lissa James Monberg - Hama Hama Co. Bruce Brenner - JJBrenner Oyster Company Bill Dewey - Taylor Shellfish Farms Jesse Fortune - Formutech Inc.

Tradeshow Exhibitors and PCSGA Allied Members

American Complete Oyster Farming Systems Inc

Cory Devine 888-412-8949 cory@acofarmingsystems.com

Aqua Pacific Wire Mesh & Supply Ltd.

Niki Palmer 205-751-3772 niki@aquapacificwire.com

BlueTrace

Chip Terry 781-570-9406 Chip@blue-trace.com

Eazy Azz Oyster Tray

David Skilton 041-912-3117 sales@eazyazzdistributors.com

Englund Marine & Industrial

James Taylor 503-325-4341 jtaylor@englundmarine.com

Formutech Inc.

Jesse Fortune 902-629-0126 jfortune@formutech.ca

Hoopers Island Oyster Company

Jordan Shockley 443-521-1721 jlshockley@blueoyster env.com

Industrial Plankton Inc.

Jennifer Long 778-977-4939 jennifer@industrialplankton.com

Intermas Nets S.A.U.

Eugénie Morant emorant@intermasgroup.com

Little Pond Nature Prints

Bruce Koike 541-961-7567 koike.bruce@gmail.com

Norplex Inc.

Jerry Stanford 253-735-3431 jsanford@norplexinc.com

Northwest Association of Networked

Ocean Observing Systems (NANOOS)

Rachel Wold 206-718-6556 rwold@uw.edu

Nova Harvest Ltd

JP Hastey 205-728-3848 office@novaharvest.com

oceanfarmr

Ewan Mcash 614-489-0581 ewan@oceanfarmr.com

Papé Machinery Agriculture & Turf

Josh Burns 360-306-4570 jburns@papemachinery.com

Pure Biomass Inc.

George Vozhdayev 612-207-7488 purebiomass@gmail.com

Reed Mariculture, Inc

Lyn Reed 408-377-1065 Lyn@ReedMariculture.com

SEAPA

Eric Schlagenhauf 415-497-0913 erik@seapausa.com

Seatle Marine and Fishing

Martin Lupton 260-351-8588 mlupton@seamar.com

Taylor Shellfish Farms

Nyle Taylor 360-426-6178 nylet@taylorshellfish.com

Thunderbird Plastic

Filip Adam 503-724-1385 Filip@thunderbirdplastics.com

Vitsab International AB/Freshtag

Jeff Desrosiers 207-210-1753 jeff.desrosiers@vitsab.com

WA State Department of Labor & Industries/Division of Occupational Safety & Health

Nancy Bell 360-902-4856 nancy.bell@Lni.wa.gov

wafla

Lisanne Bannister 360-455-8064 (x114) Ibannister@wafla.org

Thank you for attending PCSGA & NSA's 77th annual shellfish conference and tradeshow, we look forward to seeing you all next year!